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ABSTRACT

This document contains validated activities and competencies needed by information professionals working in an information analysis center. The activities and competencies are organized according to the functions which information professionals in such centers perform: acquisitions; indexing/abstracting; reference; information analysis research; and organization/management support. Within each function, competencies are grouped under the categories of Knowledge, Skills, and Attitudes, and three professional levels are dealt with: entry level (0-3 years experience), mid-level (4-9 years experience), and senior level (10 or more years experience). (THC)

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NEW DIRECTIONS IN LIBRARY AND INFORMATION SCIENCE EDUCATION
FINAL REPORT
VOLUME 2.10
INFORMATION ANALYSIS CENTER PROFESSIONAL COMPETENCIES

1984

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INTRODUCTION

This document contains validated activities and competencies needed by information professionals working in an information analysis center. The following operational definition of competency was developed:

> **A competency is a generic knowledge, skill or attitude of a person that is causally related to effective behavior as demonstrated through external performance criteria, where:**
>
> - **Knowledge is having information about, knowing, understanding, being acquainted with, being aware of, having experience of, or being familiar with something, someone, or how to do something.**
> - **Skill is the ability to use one's knowledge effectively.**
> - **Attitude is a mental or emotional approach to something, or someone.**

We have identified several types of knowledge that are necessary to perform information work satisfactorily as follows:

- Basic knowledge in such areas as language, communication, arithmetic operations, etc.
- Subject knowledge of primary subject fields of users served such as medicine, chemistry, law, etc.
- Library and information work environments such as the information community, its participants and their social, economic and technical interrelationships, etc.
- Knowledge of what work is done such as the activities required to provide services and produce products, etc.
- Knowledge of the organization or user community served such as the mission, goals, and objectives of the user or the organization, user's information needs and requirements, etc.

There appear to be three kinds of skills necessary to perform information work satisfactorily including:

- Basic skills such as cognitive, communication, analytical, etc.
- Skills related to each specific activity being performed such as negotiation of reference questions, evaluation of search outputs, etc.
- Other skills such as managing time effectively, budgeting and making projections, etc.

Attitudes of information professionals are found to be extremely important to work performance. We have found it useful to subdivide attitudes into:

- Dispositional attitudes toward one's profession, the organization served, one's work organization, and other people such as users and co-workers.
- Personality traits/qualities such as confidence, inquisitiveness, sense of ethics, flexibility, etc.
- Attitudes related to job/work/organization such as willingness to accept responsibility, willingness to learn, desire to grow, etc.

The activities and competencies are organized according to the functions which information professionals perform, and by professional level as displayed in Figure 1. The competencies are cumulative across professional level, i.e., competencies of mid-level professionals include entries shown at the mid-level as well as those at the entry level, etc.

It is important to understand the distinction between functions performed and positions or job titles. Our rationale behind the functional approach was that we were more concerned with what information professionals do than with what they are called. In a single-person center, therefore, the information professional will undoubtedly perform more than a single function. In using and interpreting the competency data in this document, it is important to consider the functions being performed by

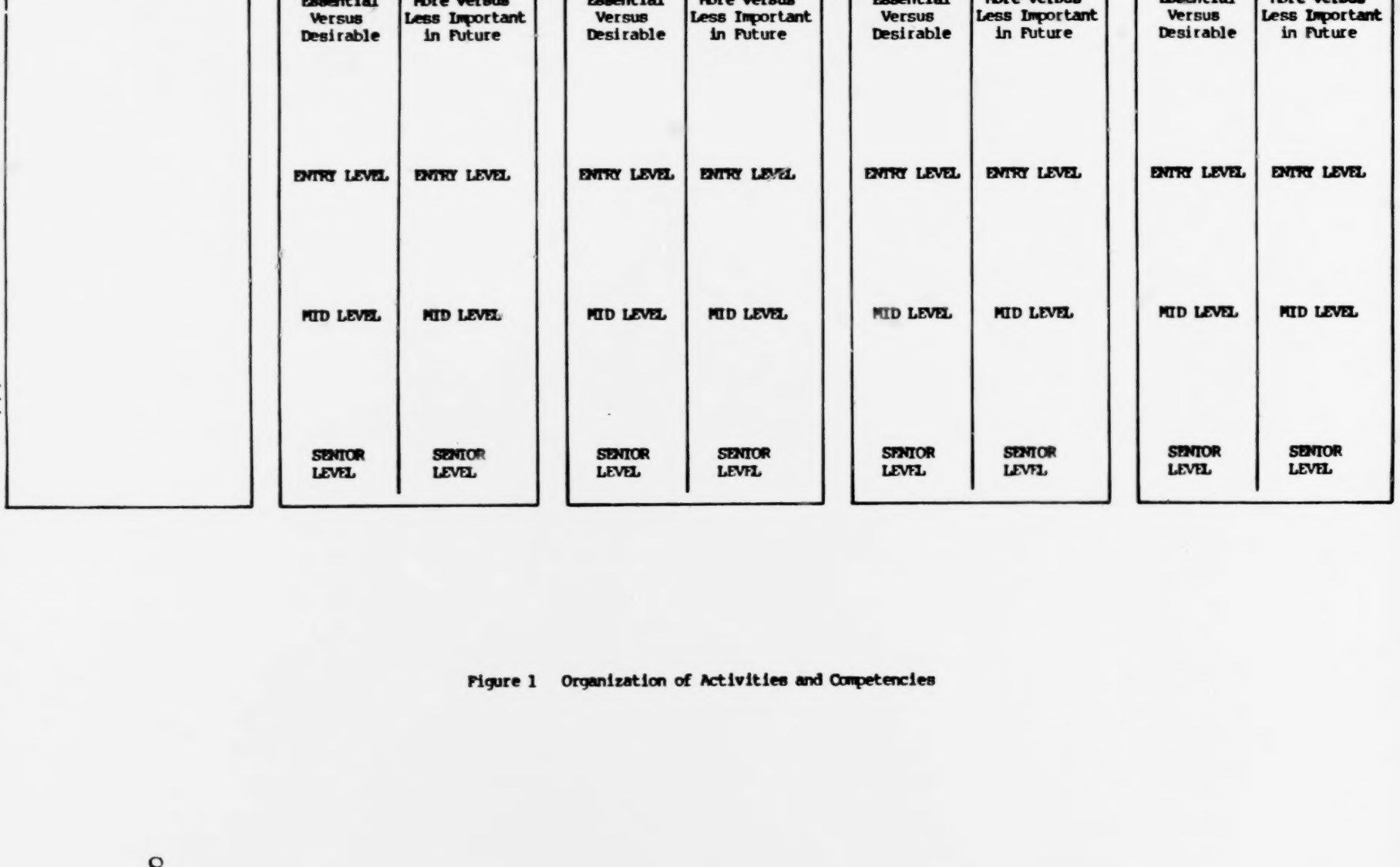

Figure 1 Organization of Activities and Competencies

professionals and the activities being performed to determine which competencies are appropriate. The functions identified for information professionals working in information analysis centers are:

- acquisitions
- indexing/abstracting
- reference
- information analysis research
- organization/management support.

Three professional levels were defined as follows:

- entry level (up to 3 years of professional experience)
- mid level (4-9 years of professional experience)
- senior level (10 or more years of professional experience).

The activities performed are listed first and numbered sequentially. The actual assignment of individual activities to subcategories of the major activities and to the functions varies from one worksetting to another. The organization of activities that we developed provided us with the "best fit" case. Indented and unnumbered activities are essentially paraprofessional activities which, in small organizations, may be performed by professionals.

INFORMATION ANALYSIS CENTER PROFESSIONAL COMPETENCIES

ACQUISITIONS

ACQUISITIONS — ENTRY LEVEL

Selection

1. Develop a good understanding of the center's policies and guidelines for data collection

2. Receive citations from organization staff for serials/numbered series, selected monographs, reports, conference and workshop proceedings, audiovisuals, unpublished materials, free materials, research in progess, etc.

3. Select materials to order from publishers' catalogs, book reviews, bibliographies, etc.

4. Examine shipments of unsolicited materials (blanket orders/on-approval shipments, deposited materials, gifts, etc.) to select which items are suitable for retention; annotate processing slips for each item as required

5. Assign processing priorities to all material selected for processing

6. Maintain a statistical record of selection and the usefulness of various selection tools

Verification and Ordering

7. Determine source of procurement for each item ordered (jobber, direct, gift, exchange, etc.)

8. Supervise ordering/claiming of materials:

verify and locate additional bibliographic data as required; refer problems to supervisor
search records to determine if material is already on order/requested
prepare/input subscription and non-subscription orders/requests, including the proper "ship to" addresses for materials to be indexed off-site
prepare/generate purchase orders, if required
prepare order/request documentation for mailing, or place orders/requests online with the appropriate suppliers
forward order documentation to the fiscal control staff for coordination and mailing, if required
claim outstanding orders/requests
claim missing issues of serials/numbered series
cancel orders, as required
re-issue orders/requests to different sources as required
order/request replacement copies of damaged/lost materials
process subscription renewals
maintain a statistical record of ordering operations

ACQUISITIONS — ENTRY LEVEL

9. Supervise ordering/requesting sample issues of serials/numbered series for review by mid level staff

10. Search for trade and non-trade bibliographic information that technicians are unable to locate; refer problems to higher level staff, as appropriate

Receipt Processing

11. Supervise receipt processing of all types of materials:

sort incoming items, as appropriate
search appropriate file to locate the records
refer to the supervisor items which differ bibliographically from the item ordered/requested
update records with receipt of individual items/issues/numbers/parts
create records for unsolicited materials which are to be processed
flag serial records for gap filling, as required
assign an accession number or other locator information to each item received
record/affix locator information on each piece; may be bar code/OCR label to allow for tracking of materials from time of receipt through completion of the processing cycle
input bibliographic data (standard journal title abbreviation, volume, issue or bibliographic information for monographs, etc.) on the indexing form/record for each item received; (this activity may involve transfer of data from one automated file to another, rather than actual data input on the indexing form/record)
mark materials with the organization's identification
affix security labels, if required
place new serial titles on the appropriate shelf for special file maintenance
place serials which have title changes on the appropriate shelf for file maintenance
place materials for indexing on the appropriate trucks
deliver trucks to proper locations
send form letters to acknowledge deposited materials/gifts, if appropriate
annotate receipt on packing slips/invoice copies, if received, and forward to the fiscal control unit
annotate packing slips/invoice copies for damaged/imperfect or unwanted hardbound series; forward documentation to the fiscal control unit

ACQUISITIONS — ENTRY LEVEL

Receipt Processing (cont'd)

11. Supervise receipt processing of all types of materials (cont'd):

    prepare damaged/imperfect materials, incorrectly supplied materials, and unwanted materials for return to suppliers, if appropriate
    place surplus materials in specified area to await proper disposal
    maintain record of receipt processing statistics

File Maintenance

12. Supervise creation and maintenance of records for non-serial materials

    input orders/requests, unsolicited receipts
    update records based on correspondence received and actions taken
    update records with receipt, return and disposal information
    delete records at appropriate levels
    maintain statistical records of file creation and maintenance operations

13. Supervise creation and maintenance of serial records:

    input records for new serial titles
    update records with data re: cancellations, reissues, claims, and gap filling
    update records for newly-received titles with indexing assignment (in-house or contract), standard title abbreviation, ISSN, frequency, etc.
    update records with data re: change in frequency, change of title, change in publisher, cessation, change of indexing assignment
    input new records for newly changed titles
    input cross reference records as required
    remove records from the active file when appropriate
    delete records when appropriate
    maintain statistical records of file creation and maintenance operations

Other

14. Handle problems related to selection, ordering and receipt processing of all types of materials and to overall maintenance of the records; refer problems to higher level staff, as appropriate.

15. Keep abreast of developments in the information field, library practice, or legislation that affect acquisition and processing of serials/numbered series, monographs, conference proceedings, audiovisuals, unpublished materials, etc.

ACQUISITIONS — MID LEVEL

Selection

16. Review sample issues of serials/numbered series to determine which titles should be acquired regularly

17. Keep abreast of changing information needs in the subject field(s) of interest to the center; notify staff of any changes

Verification and Ordering

18. Develop procedures for the verification and ordering of serials/numbered series and/or other materials selected for processing

19. Supervise the maintenance of an address file of procurement sources

20. Draft form letters for acknowledging deposited materials/gifts, requesting deposit of materials, ordering serials and other materials, claiming/cancelling orders, claiming missing issues, ordering replacement issues, etc.

21. Work with the appropriate fiscal office to schedule purchases of materials and renewal of subscriptions in order to operate within the budget

22. Work with the appropriate fiscal office to develop procedures for the handling of the final steps in ordering and invoice processing

23. Identify sources for filling gaps

Receipt Processing

24. Develop procedures for receipt processing of all types of materials

File Maintenance

25. Develop procedures for maintenance of records for order/receipt control of serial and non-serial materials

26. Make preliminary selection of forms and/or develop draft record formats for all section files

Fiscal Control

27. Work with the appropriate fiscal office of the parent organization to identify requirements and develop draft procedures for purchasing materials and services (e.g., open ended subscriptions, dealer check-in)

ACQUISITIONS — MID LEVEL

Fiscal Control (cont'd)

28. Work with the appropriate fiscal office to develop procedures for proper packing slip/invoice handling and receipt certification by section staff

29. Assist the appropriate fiscal office in resolving any problems related to payment for materials

30. Remain aware of the expenditures and balances in the materials account(s); notify the section manager of situations which may require special action

31. Develop projected budget requirements for purchasing materials for the new fiscal year

ACQUISITIONS — SENIOR LEVEL

Selection

32. Select and maintain an up-to-date collection of selection tools and aids to bibliographic verification

33. Work with senior level staff from the indexing/abstracting, reference, information analysis/research sections to formulate draft selection policies for all types of materials to be processed (fully or selectively) by the center so that it may provide appropriate information coverage in the subject field(s) within its scope of interest; recommend revisions to the policies as required

34. Prepare draft selection guidelines to be used by section staff as an aid to interpreting selection policies; draft revisions as required

35. Periodically review staff selections to ensure more uniform interpretation of the selection policies; conduct training sessions as required

36. Together with senior level information analysis/research staff and reference staff, identify organizations/institutions which produce information in the subject field(s) which are major interest to the center

37. Work with senior level information analysis/research staff and reference staff to evaluate the existing data collection(s) and identify areas of weakness

ACQUISITIONS — SENIOR LEVEL

Selecton (cont'd)

38. Prepare lists of materials to be purchased or requested in order to upgrade areas of weakness in the data collection(s)

39. Together with information analysis/research staff and reference staff, compile lists of reference books and standard works that comprise a basic collection in each major subject area within the center's scope of interest. New editions of these materials are purchased automatically

Receipt Processing

40. Work with senior staff of the indexing/abstracting section to establish procedures and resolve problems related to the timely receipt of materials for indexing and the input of bibliographic data on indexing forms/records by section staff

41. Work with senior staff and quality and production control staff of the indexing/abstracting section and with data processing staff to develop plans and procedures for using the acquisitions files for tracking materials from the time of receipt through completion of the processing workflow

Other

42. Function as a technical expert in all matters related to selection and acquisition of materials for processing

43. Interview dealers' representatives to learn about the particular services they offer

44. Identify dealers who have a good performance record in supplying irregular serials, congress/conference proceedings, and other materials which are difficult to acquire

45. Assist the section manager in negotiating with dealers' representatives to obtain the required level of service in acquiring and/or processing materials

46. Evaluate dealers' performance and report to section manager

47. Draft documentation to support cooperative agreements with organizations/institutions which produce information in the subject field(s) of interest to the center; request deposit of copyrighted and uncopyrighted materials, particularly fugitive documents (e.g., unpublished documents, project reports, preprints, texts of speeches, conference papers, curriculum guides, instructional materials)

ACQUISITIONS	SENIOR LEVEL

Other (cont'd)

48. Evaluate the participation of these primary information producers in depositing unpublished and non-trade materials with the center; suggest methods to effect increased cooperation from them

ACQUISITIONS	ENTRY LEVEL

Basic knowledge

knowledge related to literacy, numeracy, communications, etc.

Subject knowledge

knowledge of the primary subject fields of interest to the organization (e.g., economics, history, area studies, education, medicine, chemistry, law, etc.)
knowledge in greater depth in specific subjects (e.g., public affairs, international affairs, military affairs, education of specific groups, etc.)
knowledge of foreign languages

Library & Information Science Knowledge (Generic)

knowledge of definition, structure, and formats of information
knowledge of alternative approaches to the organization of information
knowledge of alternative approaches to retrieval of information
knowledge of alternative approaches to information management
knowledge of available and emerging information technologies and their applications
knowledge of completed and ongoing research in the field and its applicability to practice
knowledge of career opportunities
knowledge of how to learn on an ongoing basis

Knowledge about information work environments

knowledge of the expanding information community, its participants and their interrelationships (social, economic, technical, etc.)
knowledge of the variety of work settings and their organizational structures
knowledge of the functions performed within the various work settings and the services and products offered
knowledge of the users of the services and products, their characteristics and information habits

ACQUISITIONS — ENTRY LEVEL

Knowledge of what work is done

- knowledge of the acquisitions function, the range of services and products offered (both actual and potential)
- knowledge of the activities that are required to offer the services and produce the products
- knowledge of the various resources that are necessary to support the activities
- knowledge of acquisitions tools and sources of bibliographic information
- knowledge of acquisitions methods and techniques for published and unpublished materials
- knowledge of job responsibilities
- knowledge of performance expected and how it can be measured

Knowledge of how to do work

- knowledge of how to perform the various activities
- knowledge of how to use the acquisitions tools and sources of bibliographic information
- knowledge of how to apply the acquisitions methods and techniques

Knowledge of the organization and the specific work unit

- knowledge of the mission, goals and objectives of the organization
- knowledge of the structure of the organization and the role of the acquisitions section within the organization
- knowledge of the various projects and key personnel within the organization
- knowledge of the policies and procedures relevant to section operations
- knowledge of the various resources available within the organization (e.g. personnel, equipment, etc.)
- knowledge of the information needs and requirements to support the mission, goals and objectives of the organization
- knowledge of the organization's information collection

ACQUISITIONS — MID LEVEL

greater depths of knowledge specified above
knowledge of the operations of other sections in the organization and how they relate to acquisitions
knowledge of available vendor-supplied systems, services and products to support acquisitions
knowledge of the contracting process, both in general and within the organization
knowledge of evaluation methods and techniques to evaluate systems, services and products

ACQUISITIONS — SENIOR LEVEL

greater depths of knowledge specified above
knowledge of producers of published, unpublished information and non-trade materials in specific subject areas
knowledge of public relations techniques
knowledge of statistical description, analysis, interpretation and presentation
knowledge of the costs associated with resources (materials, personnel, space, etc.)
knowledge of cost analysis and interpretation methods
knowledge of methods of resource allocation
state-of-the-art knowledge of research and practice as it relates to the acquisition of print and non-print materials and the support of data collection in specific subjects

SKILLS

ACQUISITIONS — ENTRY LEVEL

Basic Skills

literacy, numeracy, cognitive, analytical, communications, etc.

Skills Related to Specific Activities

Ability to:

perform each activity
use computer and telecommunications equipment/systems with ease
perceive the information needs of in-house staff
properly interpret collecting guidelines
establish rapport with colleagues and with staff/representatives of dealers, jobbers, etc.
communicate well by written, verbal and non-verbal means
listen carefully
obtain/elicit required information from informal sources
collect, analyze and interpret data
make decisions and recommendations based on available information
work independently and in groups
develop criteria for evaluation
make effective, timely, and well-informed decisions
isolate and define problems and develop the necessary criteria and action for their solution
manage time effectively
conduct meetings with individuals and groups
supervise staff

ACQUISITIONS — MID LEVEL

Skills Related to Each Specific Activity

Skills listed above are developed to a greater extent

perceive new information needs where none have been required previously
develop procedures to maintain control of fiscal affairs
communicate with data processing staff and other support/contract staff on a technical level
arbitrate and negotiate with contractors'/dealers' representatives

ACQUISITIONS — SENIOR LEVEL

Skills listed above are developed to a greater extent

develop collecting policy guidelines
estimate the cost of obtaining materials to support the information needs of the organization
effect support from information producers (trade and non-trade)
anticipate long-range needs of the section and of the organization
identify and define gaps in information coverage
design systems and procedures to improve operations of the section and of the organization
apply methods of measurement and evaluation
budget and make projections
optimize the use of organizational and section resources

ATTITUDES

ACQUISITIONS

Dispositional Attitudes

Attitudes Toward Institutions

Respect for profession
Respect for the section
Respect for the parent organization

Attitudes Toward Other People

Toward Users

Respect users
Like people in general
Like to help people
Like to meet people
Like to make others feel comfortable
Sensitive to others' needs

Toward Others in the Workplace

Respect co-workers
Like to work with others/as a team
Like to work on own
Willingness to draw upon and share knowledge and experience with others
Supportive of co-workers
Enjoy managing/supervising others

Personal Qualities

Alertness
Assertiveness
Compassion/Kindness
Confidence
Cheerfulness
Dependability
Determination/Tenacity
Diplomacy
Emotional stability
Fairness
Flexability/Versatility
Imagination
Inquisitiveness
Leadership ability
Neatness
Need for achievement

ACQUISITIONS

Personal Qualities (cont'd)

- Objectivity
- Open-mindedness
- Optimism/Positive attitude
- Organization
- Patience
- Physical endurance
- Resourceful
- Sensitive/Thoughtful
- Sense of humor
- Sense of ethics
- Tolerance

Attitudes Related to Job/Work/Organization

Individual should demonstrate:

- Willingness to take/accept responsibility
- Willingness to take initiative
- Willingess to respond to authority, apply and follow policy
- Realization that there is no single "right" way to achieve the goals of the section/organization
- Desire to learn/try
- Willingness to fail
- Willingness to ask questions
- Desire to work to best of ability
- Responsiveness to time constraints
- Accuracy
- Willingness to get hands dirty
- Attention to detail
- Willingness to do clerical tasks
- Desire to follow-through
- Service orientation
- Organizational identity
- Willingness to promote parent organization and its services
- View of parent organization as part of a larger information environment
- Ability to see broad picture
- Ability to sacrifice short-term gains for long-term goals
- Political sense
- Curiosity
- Variety of interests
- Desire to grow personally
- Desire to grow professionally
- Desire to remain current in specific and general subject field
- Positive attitude toward job

INFORMATION ANALYSIS CENTER PROFESSIONAL COMPETENCIES

INDEXING/ABSTRACTING

INDEXING/ABSTRACTING — ENTRY LEVEL

1. Receive material to be indexed, as assigned by senior staff
2. Log in each item as indexing begins
3. Review preliminary data (standard journal title abbreviation or other title information, volume, issue, pagination, article/chapter title, author(s), author affiliation, abstract, and other information) entered on the indexing form/record for accuracy
4. Make corrections to preliminary data, if required
5. Translate foreign language titles, if required, and enter on the indexing form/record
6. Read/scan the item to be indexed and identify the main theme and sub-themes
7. Enter check tag data on the indexing form/record, if applicable
8. Select the appropriate headings/heading-subheading combinations from the approved thesaurus, if a controlled vocabulary is used by the organization
9. Enter the headings/heading-subheading combinations on the indexing form/record, if applicable
10. Translate foreign language abstracts, if required
11. Prepare abstracts or annotations, as required
12. Add comments/questions for the reviser on the indexing form/record, if necessary

Other

13. Complete necessary forms to suggest changes/additions to the approved thesaurus, if applicable; forward forms to the revisor
14. Keep abreast of developments in the information field that affect indexing and abstracting

INDEXING/ABSTRACTING — MID LEVEL

Other (cont'd)

15. Index and abstract the more difficult materials and the selectively indexed/abstracted materials

16. Index and abstract materials/information which may be particularly sensitive in nature

Quality and Production Control

17. Receive materials to be indexed from the acquisitions section

18. Receive information from the information analysis/research section for indexing and inclusion in the master information file

19. Review materials for presence of proper locator labels; may be bar code/OCR labels to allow for tracking of materials in process

20. Review indexing forms/records for accuracy of bibliographic/identifier data input by acquisitions staff

21. Create indexing forms/records for information not processed by the acquisitions section

22. Forward materials for descriptive indexing to in-house/contract staff:

    editorial staff mark article/chapter title, author(s), author affilitation, abstract, and other pertinent information
    keyboarding staff input data

23. Keep a record (manual/automated) of the location of materials in process

24. Review/spot check accuracy of editorial and keyboarding staff/contractor

25. Forward materials to be distributed for indexing to the appropriate senior indexer

26. Draft statements of work for requests-for-proposals for contract data entry

27. Evaluate contractors' proposals

28. Act as project officer for contract services for data entry

INDEXING/ABSTRACTING — MID LEVEL

Other

29. Work with mid-level staff of the information analysis/research and reference sections to develop and modify, as required, the detailed design and planned operating procedures for the master information file.

30. Supervise all activities (in-house and contract) relating to creation and maintenance of records in the master information file

31. Receive listings from the information analysis/research section of records which are to be deleted from the master information file and terms which are to be deleted from the file's online dictionary (if applicable)

32. Prepare/update manuals of procedures for in-house technicians and for data entry contractors

33. Work with a senior indexer (reviser) on a one-to-one basis to learn revision procedures and to develop the necessary skills

34. Participate in in-house committees which require specific subject and/or language expertise

INDEXING/ABSTRACTING — SENIOR LEVEL

35. Function as a technical expert/reviser in the section

36. Distribute work to indexers according to priority and language and/or subject expertise

37. Revise/review the work of all in-house/contract indexers

38. Respond to questions posed by revisees

39. Supervise the forwarding of all processed materials to the proper organizational unit for storage or disposal

40. Document performance of revisees

41. Prepare and conduct formal training/update classes for all in-house/contract indexers

INDEXING/ABSTRACTING — SENIOR LEVEL

Other

42. Keep abreast of bibliographic standards for indexing and abstracting; incorporate these standards into section procedures

43. Work with the section manager to determine/revise the processing priority guidelines for all titles/single items indexed

44. Work with data processing staff and appropriate advisors to develop measures to ensure the security of the data contained in the master information file

45. Resolve problems related to the operation and maintenance of the master information file

46. If applicable, work with senior staff of the thesaurus development and control section and data processing staff to develop procedures for regular maintenance of subject headings in the master information file which have been changed in or deleted from the thesaurus database

47. Develop and maintain appropriate search profiles to retrieve subsets of the master information file for processing for distribution as separate publications/databases

48. Recommend new products which may be generated from the master information file

49. Work with senior staff of the acquisitions section to establish procedures and resolve problems related to the timely receipt of materials for indexing and input of bibliographic data on the indexing form/record by acquisitions staff

50. Work with senior level staff from the acquisitions, reference, and information analysis/research sections to formulate draft selection policies for all types of materials to be acquired and processed (fully or selectively) by the center; recommend revisions as required

51. If applicable, review indexing staff suggestions for changes/additions to the approved thesaurus; confer with section manager and other senior level indexers, as appropriate

52. Act as liaison between the indexing section and the thesaurus control section on all questions related to use/modification of the approved thesaurus

INDEXING/ABSTRACTING — SENIOR LEVEL

Other

53. Prepare/update manuals of indexing and abstracting policies and procedures for in-house/contract indexers

54. Maintain an up-to-date collection of reference works to support the respective subject reference needs of the indexers

INDEXING/ABSTRACTING — ENTRY LEVEL

Basic knowledge

knowledge related to literacy, numeracy, communications, etc.

Subject knowledge

knowledge of the primary subject fields of interest to the organization (e.g., economics, history, area studies, education, medicine, law, etc.)
knowledge in greater depth in specific subjects, (e.g., public affairs, international affairs, military affairs, education of specific groups, etc.)
knowledge of foreign languages

Information Science Knowledges (Generic)

knowledge of definition, structure, and formats of information
knowledge of alternative approaches to the organization of information
knowledge of alternative approaches to retrieval of information
knowledge of alternative approaches to information management
knowledge of available and emerging information technologies and their applications
knowledge of completed and ongoing research in the field and its applicability to practice
knowledge of career opportunities
knowledge of how to learn on an ongoing basis

Knowledge about information work environments

knowledge of the expanding information community, its participants and their interrelationships (social, economic, technical, etc.)
knowledge of the variety of work settings and their organizational structures
knowledge of the functions performed within the various work settings and the services and products offered
knowledge of the users of the services and products, their characteristics and information habits

Knowledge of what work is done

knowledge of the indexing and abstracting functions, the range of services and products offered (both actual and potential)
knowledge of the activities that are required to offer the services and produce the products
knowledge of the various resources that are necessary to support the activities
knowledge of indexing tools

INDEXING/ABSTRACTING — ENTRY LEVEL

Knowledge of what work is done (cont'd)

knowledge of indexing and abstracting methods and techniques
knowledge of job responsibilities
knowledge of performance expected and how it can be measured

Knowledge of how to do work

knowledge of how to perform the various activities
knowledge of how to use the indexing tools
knowledge of how to apply the indexing and abstracting methods and techniques

Knowledge of the organization and specific work unit

knowledge of the mission, goals and objectives of the organization
knowledge of the structure of the organization and the role of the section within the organization
knowledge of the various projects and key personnel within the organization
knowledge of the policies and procedures relevant to section operations
knowledge of the various resources available within the organization (e.g. personnel, equipment, etc.)
knowledge of the information needs and requirements to support the mission, goals and objectives of the organization
knowledge of the organization's information collection

INDEXING/ABSTRACTING — MID LEVEL

greater depths of knowledge specified above
knowledge of the operations of other sections in the organization and how they relate to indexing/abstracting
knowledge of available vendor-supplied systems, services and products to support indexing/abstracting
knowledge of the contracting process, both in general and within the organization
knowledge of evaluation methods and techniques to evaluate systems, services and products
knowledge of the quality and production control techniques and procedures
knowledge of general methods for maintaining security of databases

INDEXING/ABSTRACTING — SENIOR LEVEL

greater depths of knowledge specified above
knowledge of the relative value/importance of information from various sources
knowledge of statistical description, analysis, interpretation and presentation
knowledge of the costs associated with resources (materials, personnel, space, etc.)
knowledge of cost analysis and interpretation methods
knowledge of methods of resource allocation
state-of-the-art knowledge of research and practice in indexing and abstracting techniques

INDEXING/ABSTRACTING — ENTRY LEVEL

Basic Skills

literacy, numeracy, cognitive, analytical, communications, etc.

Skills Related to Specific Activities

Ability to:

perform each activity
use computer and telecommunications equipment/systems with ease
apply indexing and abstracting rules consistently
perceive the information needs of inhouse staff
establish rapport with colleagues
communicate well by written, verbal and non-verbal means
quickly extract the main points of documents/information and present them concisely
make decisions and recommendations based on available information
work independently
develop criteria for evaluation
make effective, timely, and well-informed decisions
isolate and define problems and develop the necessary criteria and action for their solution
manage time effectively
work under pressure of strict deadlines and/or processing quotas

INDEXING/ABSTRACTING — MID LEVEL

Skills Related to Each Specific Activity

Skills listed above are developed to a greater extent

Ability to:

perceive new information needs where none have been required previously
develop operating procedures for manual and/or automated systems
communicate with data processing staff and other support/contract staff on a technical level
arbitrate and negotiate with contractors
work in groups
conduct meetings with individuals and groups
supervise staff

INDEXING/ABSTRACTING — SENIOR LEVEL

Skills listed above are developed to a greater extent

Ability to:

identify the information required to support the orgaznization
estimate the cost of processing the necessary information to support the organization
anticipate long-range needs of the section and of the organization
design systems and procedures to improve operations of the section and of the organization
identify potential weaknesses in system security
apply methods of measurement and evaluation
budget and make projections
optimize the use of organizational and section resources

INDEXING/ABSTRACTING

Dispositional Attitudes

Attitudes Toward Institutions

Respect for profession
Respect for the section
Respect for the parent organization

Attitudes Toward Other People

Toward Users

Respect users
Like people in general
Like to help people
Like to meet people
Like to make others feel comfortable
Sensitive to others' needs

Toward Others in the Workplace

Respect co-workers
Like to work with others/as a team
Like to work on own
Willingness to draw upon and share knowledge and experience with others
Supportive of co-workers
Enjoy managing/supervising others

Personal Qualities

Alertness
Assertiveness
Compassion/Kindness
Confidence
Cheerfulness
Dependability
Determination/Tenacity
Diplomacy
Emotional stability
Fairness
Flexibility/Versatility
Imagination
Inquisitiveness
Leadership ability
Neatness
Need for achievement

INDEXING/ABSTRACTING

Personal Qualities (cont'd)

Objectivity
Open-mindedness
Optimism/Positive attitude
Organization
Patience
Physical endurance
Resourceful
Sensitive/Thoughtful
Sense of humor
Sense of ethics
Tolerance

Attitudes Related to Job/Work/Organization

Individual should demonstrate:

Willingness to take/accept responsibility
Willingness to take initiative
Willingness to respond to authority, apply and follow policy
Realization that there is no single "right" way to achieve the goals of the section/organization
Desire to learn/try
Willingness to fail
Willingness to ask questions
Desire to work to best of ability
Responsiveness to time constraints
Accuracy
Willingness to get hands dirty
Attention to detail
Willingness to do clerical tasks
Desire to follow-through
Service orientation
Organizational identity
Willingness to promote parent organization and its services
View of parent organization as part of a larger information environment
Ability to see broad picture
Ability to sacrifice short-term gains for long-term goals
Political sense
Curiosity
Variety of interests
Desire to grow personally
Desire to grow professionally
Desire to remain current in specific and general subject field
Positive attitude toward job

INFORMATION ANALYSIS CENTER PROFESSIONAL COMPETENCIES

REFERENCE

ACTIVITIES

REFERENCE	ENTRY LEVEL

Custom Searches

1. Log in and review search request forms submitted by in-house staff
2. Contact requesters if clarification of information requirements is required
3. Develop the strategy for obtaining, evaluating, and packaging the information and data to meet requesters' needs
4. Perform online searches of the master information file and/or of commercial database services, using proper thesaurus terms (if applicable) and advanced search techniques to retrieve the requested information
5. Review retrieval output for relevancy
6. If additional searching is required, determine appropriate source(s) (printed publications, consultation with subject experts, collections of other organizations, etc.)
7. Obtain information for requesters from other information services/sources, as appropriate
8. Obtain copies (hard or microfiche) of original documents from the organization's collection(s) or from the collections of other organizations
9. Supervise preparation of search results for delivery to requesters
10. Refer more difficult information requests to higher-level reference staff, as appropriate

SDI Searches

11. Run stored search profiles/programs at specified intervals
12. Supervise preparation of offline printouts for delivery

Other

13. Answer ready reference questions
14. Perform bibliographic verification as required

REFERENCE	ENTRY LEVEL

Other (cont'd)

15. Assist senior staff with procedures, documentation and communication to support the implementation of special online training classes and system demonstrations for new staff in the section and in the information analysis/research section

16. Supervise orderly maintenance of the reference room and re-shelving of materials

17. Suggest ways in which the online system for the master information file may be made more user-friendly

18. Participate in cross-education of staff by filling out and distributing staff alert forms describing new information discovered about the subject fields(s) of interest to the center, the master information file, specific commercial databases, specific types of equipment, telecommunications systems, etc.

19. Recommend materials/data for inclusion in the master information file

20. Complete necessary forms to suggest changes/additions to the approved thesaurus, if applicable; forward forms to senior level section staff

21. Recommend new products which could be developed from the master information file

22. Use interdisciplinary reference sources/services to identify materials which are in-scope for the center and which should be acquired

23. Forward to the selection/acquisitions staff recommendations for materials to be acquired and indexed

24. Recommend acquisition of commercial database services to support reference needs

25. Recommend acquisition of materials for the reference collection

26. Keep abreast of new and changing reference sources, services and tools

27. Keep abreast of new and developing technologies applicable to reference searching

28. Keep abreast of developments in the subject field(s) of interest to the center

REFERENCE — MID LEVEL

Custom Searches

29. Perform more complex searches

30. Assist entry level staff with any questions related to search formulation or strategy, including use of the approved thesaurus terms, if applicable

31. Provide special reference service for staff of the information analysis/research section: consult reference works, the master information file, and other appropriate sources and prepare written summaries of factual information

SDI Searches

32. Review subject interest forms submitted by information analysis/research staff and other organizational staff

33. Develop and maintain stored search profiles for SDI searches

34. Obtain feedback from requesters on the relevancy of retrievals

35. Modify stored search profiles, as required

Other

36. Prepare information brochures on the search programs and other services provided to organizational staff by the reference section

37. Prepare forms to support the custom and SDI search services

38. Develop and supervise operation of a tracking system in order to maintain knowledge of the status of all information requests

39. Arrange for contract/in-house translation of selected foreign language documents, as requested by information analysis/research staff

40. Identify libraries, information centers and other information facilities in the local area which collect/disseminate information in subject areas which supplement the organization's information collections.

41. Contact these facilities to identify the services they would provide to the organization; note any costs associated with services

REFERENCE — MID LEVEL

Other (cont'd)

42. Work with mid level staff of the information analysis/research and indexing/abstracting sections to develop and modify, as required, the detailed design and planned operating procedures for the master information file

REFERENCE — SENIOR LEVEL

Search Service Administration

43. Supervise the overall planning and operation of the custom and SDI search services

44. Assign search requests to the appropriate entry and mid level staff for processing

45. Assist mid level staff in formulating the search strategies for particularly difficult topics; seek assistance from senior level indexing staff, if required

46. Spot check the search results obtained on custom and SDI searches; recommend additional search strategies as appropriate

47. Identify experts that junior staff should contact to supply additional information to support specific information requests

System Training and Demonstration

48. Plan and coordinate all in-house training activities and demonstrations related to the center's master information file and other online database(s)

49. Monitor and evaluate all training activities and system demonstrations by direct observation and by review of attendees' written evaluations

50. Advise section staff of ways in which they may improve training sessions, training aids, and system demonstrations

Other

51. Function as a technical expert in all matters relating to reference search services and to preparation of information summaries to support the factual information needs of the information analysis/research section and other organizational staff

REFERENCE — SENIOR LEVEL

Other (cont'd)

52. Work with senior staff of the information analysis/research and indexing/abstracting sections to develop the overall design requirements for the master information file

53. Work with senior staff of the information analysis/research and indexing/abstracting sections to review and approve/modify the detailed design and planned operating procedures for the master information file as developed by mid level staff of the three sections

54. Obtain input from organizational staff regarding changes that they would recommend in the search services and in other services provided by the section

55. Together with senior level staff from the information analysis/research and selection/acquisitions sections, identify organizations/institutions which produce information in the subject field(s) which the information center supports

56. Work with senior level staff from the information analysis/research, selection/acquisitions, and indexing/abstracting sections to formulate draft selection policies for all types of materials to be acquired and processed (fully or selectively) by the center; recommend revisions as required

57. Work with senior level selection/acquisitions staff and information analysis/research staff to evaluate the existing data collection(s) and to identify areas of weakness

58. If applicable, review suggestions by section staff for changes/additions to the approved thesaurus; forward recommended changes/additions to thesaurus development and control staff

59. Review and weed the reference collection on a regular basis

60. Compile lists of reference books and standard works which comprise a basic collection in each major subject area of interest to the center. New editions of these materials are to be acquired when published. Forward the lists to acquisitions for processing

61. Meet with managers of libraries, information centers and other information facilities serving the local area in order to make the necessary arrangements to obtain special support, when required, to meet the organization's information needs

62. Represent the center at professional meetings and conferences in the subject field(s) of interest to the center

REFERENCE	ENTRY LEVEL

Basic knowledge

knowledge related to literacy, numeracy, communications, etc.

Subject knowledge

knowledge of the primary subject fields of interest to the organization (e.g., economics, history, area studies, education, medicine, law, etc.)
knowledge in greater depth in specific subjects (e.g., public affairs, international affairs, military affairs, education of specific groups, etc.)
knowledge of foreign languages

Information Science Knowledge (Generic)

knowledge of definition, structure, and formats of information
knowledge of alternative approaches to the organization of information
knowledge of alternative approaches to retrieval of information
knowledge of alternative approaches to information management
knowledge of available and emerging information technologies and their applications
knowledge of completed and ongoing research in the field and its applicability to practice
knowledge of career opportunities
knowledge of how to learn on an ongoing basis

Knowledge about information work environments

knowledge of the expanding information community, its participants and their interrelationships (social, economic, technical, etc.)
knowledge of the variety of work settings and their organizational structures
knowledge of the functions performed within the various work settings and the services and products offered
knowledge of the users of the services and products, their characteristics and information habits

Knowledge of what work is done

knowledge of the reference functions, the range of services and products offered (both actual and potential)
knowledge of the activities that are required to offer the services and produce the products
knowledge of the various resources that are necessary to support the activities
knowledge of reference tools

REFERENCE — ENTRY LEVEL

Knowledge of what work is done (cont'd)

knowledge of reference methods and techniques
knowledge of job responsibilities
knowledge of performance expected and how it can be measured

Knowledge of how to do work

knowledge of how to perform the various activities
knowledge of how to use the reference tools
knowledge of how to apply the reference techniques

Knowledge of the organization and specific work unit

knowledge of the mission, goals and objectives of the organization
knowledge of the structure of the organization and the role of the section within the organization
knowledge of the various projects and key personnel within the organization
knowledge of the policies and procedures relevant to section operations
knowledge of the various resources available within the organization (e.g. personnel, equipment, etc.)
knowledge of the information needs and requirements to support the mission, goals and objectives of the organization
knowledge of the organization's information collection and of related collections

KNOWLEDGE — MID LEVEL

greater depths of knowledge specified above
knowledge of the operations of other sections in the organization and how they relate to reference
knowledge of available vendor-supplied systems, services and products to support reference
knowledge of the contracting process, both in general and within the organization
knowledge of evaluation methods and techniques to evaluate systems, services and products

REFERENCE	SENIOR LEVEL

greater depths of knowledge specified above
knowledge of statistical description, analysis, interpretation and presentation
knowledge of the costs associated with resources (materials, personnel, space, etc.)
knowledge of cost analysis and interpretation methods
knowledge of methods of resource allocation
state-of-the-art knowledge of research and practice in reference techniques

SKILLS

REFERENCE — ENTRY LEVEL

Basic Skills

literacy, numeracy, cognitive, analytical, communications, etc.

Skills Related to Specific Activities

Ability to:

perform each activity
use computer and telecommunications equipment/systems with ease
perceive the information needs of in-house staff
establish rapport with colleagues and experts
communicate well by written, verbal and non-verbal means
conduct an interview
listen carefully
obtain/elicit required information from informal sources
collect, analyze and interpret data
quickly extract the main points of documents/information and present them concisely
make decisions and recommendations based on available information
work independently and in groups
develop criteria for evaluation
make effective, timely, and well-informed decisions
isolate and define problems and develop the necessary criteria and action for their solution
manage time effectively
stay organized while working on several projects at the same time
extract information which is not environment-specific to one project and use the information to support related projects
train in-house staff in use of online systems
supervise staff

REFERENCE — MID LEVEL

Skills Related to Each Specific Activity

Skills listed above are developed to a greater extent

Ability to:

perceive new information needs where none have been required previously
communicate with data processing staff and other support/contract staff on a technical level
arbitrate and negotiate with contractors
conduct meetings with individuals and groups

SKILLS

REFERENCE	SENIOR LEVEL

Skills listed above are developed to a greater extent

Ability to:

identify the information required to support each special project
estimate the cost of obtaining the necessary information to support organizational needs
effect support from other information services/suppliers
anticipate long-range needs of the section and of the organization
identify and define gaps in information coverage
design systems and procedures to improve operations of the section and of the organization
apply methods of measurement and evaluation
budget and make projections
optimize the use of organizational and section resources

ATTITUDES

REFERENCE

Dispositional Attitudes

Attitudes Toward Institutions

Respect for profession
Respect for the section
Respect for the parent organization

Attitudes Toward Other People

Toward Users

Respect users
Like people in general
Like to help people
Like to meet people
Like to make others feel comfortable
Sensitive to others' needs

Toward Others in the Workplace

Respect co-workers
Like to work with others/as a team
Like to work on own
Willingness to draw upon and share knowledge and experience with others
Supportive of co-workers
Enjoy managing/supervising others

Personal Qualities

Alertness
Assertiveness
Compassion/Kindness
Confidence
Cheerfulness
Dependability
Determination/Tenacity
Diplomacy
Emotional stability
Fairness
Flexibility/Versatility
Imagination
Inquisitiveness
Leadership ability

REFERENCE

Personal Qualities (cont'd)

- Neatness
- Need for achievement
- Objectivity
- Open-mindedness
- Optimism/Positive attitude
- Organization
- Patience
- Physical endurance
- Resourceful
- Sensitive/Thoughtful
- Sense of humor
- Sense of ethics
- Tolerance

Attitudes Related to Job/Work/Organization

Individual should demonstrate:

- Willingness to take/accept responsibility
- Willingness to take initiative
- Willingness to respond to authority, apply and follow policy
- Realization that there is no single "right" way to achieve the goals of the section/organization
- Desire to learn/try
- Willingness to fail
- Willingness to ask questions
- Desire to work to best of ability
- Responsiveness to time constraints
- Accuracy
- Willingness to get hands dirty
- Attention to detail
- Willingness to do clerical tasks
- Desire to follow-through
- Service orientation
- Organizational identity
- Willingness to promote parent organization and its services
- View of parent organization as part of a larger information environment
- Ability to see broad picture
- Ability to sacrifice short-term gains for long-term goals
- Political sense
- Curiosity
- Variety of interests
- Desire to grow personally
- Desire to grow professionally
- Desire to remain current in specific and general subject field
- Positive attitude toward job

INFORMATION ANALYSIS CENTER PROFESSIONAL COMPETENCIES

INFORMATION ANALYSIS/RESEARCH

INFORMATION ANALYSIS/RESEARCH — ENTRY LEVEL

1. Work as part of the appropriate research team to identify the specific data to be collected and analyzed to support each on-going and special information analysis project

2. Prepare search request forms to obtain searches of the master information file and other reference sources by reference section staff; suggest appropriate thesaurus terms, if applicable

3. Request preparation of summaries of factual information by reference section staff

4. Review data (master information file printouts, factual information summaries, bibliographies, documents, etc.) supplied by reference staff for relevancy and adequacy

5. Request additional searching and other support from the reference staff, as required

6. Review data supplied to the section by other organizational units as part of their regular activities

7. Perform searches of secured portions of the master information file to which reference staff may not have access and/or use special search strategies and techniques which may be available to analysts/researchers only

8. Contact in-house/contract subject experts in order to obtain additional data or to discuss questionable data

9. Analyze, interpret, evaluate and synthesize the data collected

10. Draft a comprehensive status/state-of-the-art report on the assigned topic(s) containing facts, thoughts, analyses and recommendations for action

11. Prepare a final draft report based on recommendations for modification/expansion of the report by higher level staff

Other

12. Recommend materials/data for inclusion in the master information file

13. Regularly review SDI data retrieved by reference section staff according to one's personal subject interest profile; suggest modifications to the profile as required

INFORMATION ANALYSIS/RESEARCH — ENTRY LEVEL

Other (cont'd)

14. Participate in cross education of appropriate section staff by filling out and distributing staff alert forms describing new information discovered about the subject field(s) of interest to the organization, the master information file, specific types of equipment/systems used in the section, etc.

15. Recommend materials/data for inclusion in the master information file

16. Complete necessary forms to suggest changes/additions to the approved thesaurus, if applicable; forward forms to senior level section staff

17. Recommend new products and special correlations of data which could be developed from the master information file

18. Maintain up-to-date knowledge of the capabilities of statistical and other analytical software packages available in-house

19. Forward to the selection/acquisitions staff recommendations for acquisition of pertinent materials not owned by the center and identified in the course of research

20. Request acquisition of materials to provide an up-to-date desk collection to support one's area of expertise/investigation

21. Keep abreast of new and changing sources of information in one's area of expertise/investigation

22. Keep abreast of new and developing technologies applicable to information analysis and research

23. Keep abreast of developments in subject field(s) of interest to the center and particularly in one's area of expertise/investigation

INFORMATION ANALYSIS/RESEARCH — MID LEVEL

24. Prepare status/state-of-the-art reports on the more difficult topics, as assigned by senior staff

25. Edit reports prepared by junior staff and make recommendations for modifications/additions to the reports

26. Resolve minor problems related to the preparation of reports; refer major problems to senior staff

INFORMATION ANALYSIS/RESEARCH — MID LEVEL

27. Develop and supervise operation of a tracking system in order to maintain knowledge of the status of all reports in preparation by section staff; notify senior staff of any problems

Other

28. Work with mid level staff of the reference and indexing/abstracting sections to develop and modify, as required, the detailed design and planned operating procedures for the master information file

29. Work with data processing staff to develop specifications for programs to allow the section to perform searches on restricted data in the master information file and to use unique search strategies and techniques to obtain special correlations of data

30. Identify and acquire access to specific statistical and other analytical software packages to support information analysis and research

31. Use and/or supervise use of analytical software packages by section staff; resolve problems, as required

32. Arrange for and supervise contract access to subject experts to support information analysis and research activities

INFORMATION ANALYSIS/RESEARCH — SENIOR LEVEL

33. At meetings of the respective research teams, outline the basic information analysis and research requirements to support each on-going and special information analysis project

34. Assign specific tasks to each member of a research team

35. Work individually with members of each research team to resolve major problems related to their portions of the information analysis/research projects

36. Select topics for analysis and research in anticipation of future information needs of the organization

37. Identify subject experts who should be solicited as contract support for on-going and special projects

INFORMATION ANALYSIS/RESEARCH — SENIOR LEVEL

38. Notify appropriate organizational units of data which they may be able to supply/obtain in order to better support the information analysis and research activities of the organization

Other

39. Function as a technical expert in all matters relating to methods and techniques of information analysis and research

40. Work with senior staff of the reference and indexing/abstracting sections to develop the overall design requirements for the master information file

41. Work with senior staff of the reference and indexing/abstracting sections to review and approve/modify the detailed design and planned operating procedures for the master information file as developed by mid level staff of the three sections

42. Review materials/data recommended by section staff for inclusion in the master information file; forward materials/data approved for input to appropriate staff in the indexing/abstracting section

43. Obtain input from section and appropriate organizational staff regarding changes that they would recommend in specific information analysis/research products and/or in information analysis/research activities

44. Together with senior level staff from the reference and indexing/abstracting sections, identify organizations/institutions which produce information in the subject field(s) of interest to the organization

45. Work with senior level staff from the reference and selection/acquisitions sections to formulate draft selection policies for all types of materials to be acquired and processed (fully or selectively) by the center; recommend revisions as required

46. Work with senior level selection/acquisitions staff and reference staff to evaluate the existing data collection(s) and to identify areas of weakness

47. If applicable, review suggestions by section staff for changes/additions to the approved thesaurus; forward recommended changes/additions to thesaurus development and control staff

INFORMATION ANALYSIS/RESEARCH — SENIOR LEVEL

Other (cont'd)

48. Review categories of data contained in the master information file and identify parameters for retrieval of records which should be reviewed for possible offline storage/deletion

49. Review records retrieved and identify specific action to be taken for each record; forward records to the indexing/abstracting section for file maintenance

INFORMATION ANALYSIS/RESEARCH — ENTRY LEVEL

Basic knowledge

knowledge related to literacy, numeracy, communications, etc.

Subject knowledge

knowledge of the primary subject fields of interest to the organization (e.g., economics, history, area studies, education, medicine, law, etc.)
knowledge in greater depth in specific subjects, (e.g., public affairs, international affairs, military affairs, education of specific groups, etc.)
knowledge of foreign languages

Information Science Knowledge (Generic)

knowledge of definition, structure, and formats of information
knowledge of alternative approaches to the organization of information
knowledge of alternative approaches to retrieval of information
knowledge of alternative approaches to information management
knowledge of available and emerging information technologies and their applications
knowledge of completed and ongoing research in the field and its applicability to practice
knowledge of career opportunities
knowledge of how to learn on an ongoing basis

Knowledge about information work environments

knowledge of the expanding information community, its participants and their interrelationships (social, economic, technical, etc.)
knowledge of the variety of work settings and their organizational structures
knowledge of the functions performed within the various work settings and the services and products offered
knowledge of the users of the services and products, their characteristics and information habits

INFORMATION ANALYSIS/RESEARCH — ENTRY LEVEL

Knowledge of what work is done

- knowledge of the information analysis and research functions, the range of services and products offered (both actual and potential)
- knowledge of the activities that are required to offer the services and produce the products
- knowledge of the various resources that are necessary to support the activities
- knowledge of research tools
- knowledge of information analysis and research methods and techniques
- knowledge of job responsibilities
- knowledge of performance expected and how it can be measured

Knowledge of how to do work

- knowledge of how to perform the various activities
- knowledge of how to use the research tools
- knowledge of how to apply the information analysis and research methods and techniques

Knowledge of the organization and specific work unit

- knowledge of the mission, goals and objectives of the organization
- knowledge of the structure of the organization and the role of the section within the organization
- knowledge of the various projects and key personnel within the organization
- knowledge of the policies and procedures relevant to section operations
- knowledge of the various resources available within the organization (e.g. personnel, equipment, etc.)
- knowledge of the information needs and requirements to support the mission, goals and objectives of the organization
- knowledge of the organization's information collection

INFORMATION ANALYSIS/RESEARCH — MID LEVEL

- greater depths of knowledge specified above
- knowledge of the operations of other sections in the organization and how they relate to information analysis and research
- knowledge of available vendor-supplied systems, services and products to support information analysis and research
- knowledge of the contracting process, both in general and within the organization
- knowledge of evaluation methods and techniques to evaluate systems, services and products

INFORMATION ANALYSIS/RESEARCH — SENIOR LEVEL

greater depths of knowledge specified above
knowledge of formal and informal sources of information on specific topics/areas
knowledge of the relative value/importance of information from various sources
knowledge of the costs associated with resources (materials, personnel, space, etc.)
knowledge of cost analysis and interpretation methods
knowledge of methods of resource allocation
state-of-the-art knowledge of research and practice in information analysis and research techniques

INFORMATION ANALYSIS/RESEARCH — ENTRY LEVEL

Basic Skills

literacy, numeracy, cognitive, analytical, communications, etc.

Skills Related to Specific Activities

Ability to:

perform each activity
use computer and telecommunications equipment/systems with ease
use a logical approach to problem analysis and problem solving
establish rapport with colleagues and with subject experts
communicate well by written, verbal and non-verbal means
conduct an interview in person or by phone
elicit required data
listen carefully
think creatively
collect, analyze, interpret and synthesize data
evaluate importance of data
discern questionable data and verify or reject them
report facts, thoughts and analyses
make decisions and recommendations based on available information
work independently and in groups
develop criteria for evaluation
make effective, timely, and well-informed decisions
isolate and define problems and develop the necessary criteria and action for their solution
manage time effectively
work under pressure of strict deadlines
endure the stress of irregular work hours during rush/crisis periods
stay organized while working on several projects at the same time
extract data and/or techniques which are not environment-specific to one project and use the data and/or techniques to support related projects
supervise staff

INFORMATION ANALYSIS/RESEARCH — MID LEVEL

Skills Related to Each Specific Activity

Skills listed above are developed to a greater extent

Ability to:

edit reports
identify and define gaps in data
develop criteria to evaluate conflicting data
resolve conflicting data
communicate with data processing staff and other support/contract staff on a technical level
arbitrate and negotiate with contractors
conduct meetings with individuals and groups

INFORMAITON ANALYSIS/RESEARCH — SENIOR LEVEL

Skills listed above are developed to a greater extent

Ability to:

identify the basic data and analyses required to properly examine a given topic
assimilate the data gathered and analyzed in order to further direct research efforts
estimate the time requirements and costs of collecting, analyzing, evaluating data and making recommendations
anticipate long-range information and other needs of the section and of the organization
design systems and procedures to improve operations of the section and of the organization
apply methods of measurement and evaluation
budget and make projections
optimize the use of organizational and section resources

INFORMATION ANALYSIS/RESEARCH

Dispositional Attitudes

Attitudes Toward Institutions

Respect for profession
Respect for the section
Respect for the parent organization

Attitudes Toward Other People

Toward Users

Respect users
Like people in general
Like to help people
Like to meet people
Like to make others feel comfortable
Sensitive to others' needs

Toward Others in the Workplace

Respect co-workers
Like to work with others/as a team
Like to work on own
Willingness to draw upon and share knowledge and experience with others
Supportive of co-workers
Enjoy managing/supervising others

Personal Qualities

Alertness
Assertiveness
Compassion/Kindness
Confidence
Cheerfulness
Dependability
Determination/Tenacity
Diplomacy
Emotional stability
Fairness
Flexibility/Versatility
Imagination
Inquisitiveness
Leadership ability
Neatness
Need for achievement
Objectivity
Open-mindedness

INFORMATION ANALYSIS/RESEARCH

Personal Qualities (cont'd)

Neatness
Need for achievement
Objectivity
Open-mindedness
Optimism/Positive attitude
Organization
Patience
Physical endurance
Resourceful
Sensitive/Thoughtful
Sense of humor
Sense of ethics
Tolerance

Attitudes Related to Job/Work/Organization

Individual should demonstrate:

Willingness to take/accept responsibility
Willingness to take initiative
Willingness to respond to authority, apply and follow policy
Realization that there is no single "right" way to achieve the goals of the section/organization
Desire to learn/try
Willingness to fail
Willingness to ask questions
Desire to work to best of ability
Responsiveness to time constraints
Accuracy
Willingness to get hands dirty
Attention to detail
Willingness to do clerical tasks
Desire to follow-through
Service orientation
Organizational identity
Willingness to promote parent organization and its services
View of parent organization as part of a larger information environment
Ability to see broad picture
Ability to sacrifice short-term gains for long-term goals
Political sense
Curiosity
Variety of interests
Desire to grow personally
Desire to grow professionally
Desire to remain current in specific and general subject field
Positive attitude toward job

INFORMATION ANALYSIS CENTER PROFESSIONAL COMPETENCIES

ORGANIZATION MANAGEMENT SUPPORT

ACTIVITIES

ORGANIZATION/MANAGEMENT SUPPORT	ENTRY LEVEL

1. Identify materials to be included in section, master organization and personal files
2. Recommend purchase of professional publications/audiovisuals for inclusion in the staff library
3. Perform special studies, as assigned
4. Conduct business by phone, whenever appropriate
5. Write memos, letters, reports, etc. as required
6. Maintain a record of work performed and prepare a monthly report of activities
7. Prepare manuals of procedures
8. Make recommendations to the section manager for improvement in operations of the section
9. Attend and participate in staff meetings
10. Provide an overview of the operations of the section to visitors, as requested
11. Supervise technicians and other paraprofessional staff
12. Work to develop "esprit de corps" among staff supervised
13. Assist section manager in writing job descriptions for self and for staff supervised
14. Assist section manager in developing performance standards for self and for staff supervised
15. Assist section manager in the review and performance evaluation of staff supervised
16. Assist in the selection of new technicians and paraprofessionals
17. Keep abreast of developments and new and developing technologies in the information field and in related fields, as required
18. Attend professional meetings and prepare reports for dissemination to staff
19. Develop professional contacts both within and outside the parent organization

ACTIVITIES

ORGANIZATION/MANAGEMENT SUPPORT	MID LEVEL

20. Make preliminary selection of forms and/or develop draft record formats for files and operations, as appropriate

21. Weed section files, as assigned

22. Identify and evaluate commercially available systems/services to support section/organization activities

23. Assess performance of existing equipment/systems/services used in the section/organization and investigate capabilities of other equipment/systems/services

24. Recommend acquisition of new/additional equipment/systems/services

25. Train staff in operation and in-house maintenance of equipment/systems/services

26. Supervise in-house operation and maintenance of equipment/systems/services

27. Gather information for maintenance contracts on equipment/systems

28. Draft statements of work for contract proposals for services, systems, equipment and/or maintenance

29. Evaluate contractors' proposals

30. Act as contract monitor/technical representative, as assigned

31. Train and supervise entry level staff

32. Assist in the selection of new professional staff

33. Write articles for professional journals/newsletters when appropriate

ORGANIZATION/MANAGEMENT SUPPORT	SENIOR LEVEL

34. Review and dispose of materials/information selected for weeding/deletion from section files

35. Draft section procedures and policies; draft revisions as required

36. Flowchart and document section procedures

ACTIVITIES

ORGANIZATION/MANAGEMENT SUPPORT	SENIOR LEVEL

37. Assist section manager in on-going systems analysis of the section

38. Analyze statistics of section operations and prepare draft statistical reports

39. Train and supervise mid level staff

40. Assist section manager in preparing the annual budget for section operations

41. Function as section manager in his/her absence

42. Represent the section/organization at meetings, etc., as assigned

ORGANIZATION/MANAGEMENT SUPPORT — ENTRY LEVEL

Basic knowledge

knowledge related to literacy, numeracy, communications, etc.

Subject knowledge

knowledge of the primary subject field of interest to the organization (e.g., economics, history, area studies, education, medicine, law, etc.)
knowledge of foreign languages

Information Science Knowledge (Generic)

knowledge of definition, structure, and formats of information
knowledge of alternative approaches to the organization of information
knowledge of alternative approaches to retrieval of information
knowledge of alternative approaches to information management
knowledge of available and emerging information technologies and their applications
knowledge of completed and ongoing research in the field and its applicability to practice
knowledge of career opportunities
knowledge of how to learn on an ongoing basis

Knowledge about information work environments

knowledge of the expanding information community, its participants and their interrelationships (social, economic, technical, etc.)
knowledge of the variety of work settings and their organizational structures
knowledge of the functions performed within the various work settings and the services and products offered
knowledge of the users of the services and products, their characteristics and information habits

Knowledge of what work is done

knowledge of the functions required to support section/organizational operations and management
knowledge of the activities that are required to offer the services and produce the products
knowledge of the various resources that are necessary to support the activities
knowledge of tools for training, supervising, and evaluating staff

ORGANIZATION/MANAGEMENT SUPPORT — ENTRY LEVEL

Knowledge of what work is done (cont'd)

- knowledge of tools for supporting section/organizational operations and management
- knowledge of methods and techniques for supporting section/organization operations and management
- knowledge of job responsibilities and working conditions (e.g., range of duties, probable compensation benefits, etc.)
- knowledge of performance expected and how it can be measured

Knowledge of how to do work

- knowledge of how to perform the various activities
- knowledge of how to use the tools for training, supervising, and evaluating staff
- knowledge of how to use the tools for supporting section/organizational operations and management
- knowledge of how to apply the methods and techniques for training, supervising, and evaluating staff
- knowledge of how to apply the methods and techniques for supporting section/organizational operations and management
- knowledge of personnel procedures
- knowledge of standards, measures, and methods for evaluating personnel

Knowledge of the organization and specific work unit

- knowledge of the mission, goals and objectives of the organization
- knowledge of the structure of the organization and the role of one's section within the organization
- knowledge of the various projects and key personnel within the organization
- knowledge of the policies and procedures relevant to operations of one's section
- knowledge of the various resources available within the organization (e.g. personnel, equipment, etc.)
- knowledge of in-house information needs and requirements

ORGANIZATION/MANAGEMENT SUPPORT — MID LEVEL

greater depths of knowledge specified above
knowledge of the operations of other sections in the organization and how they relate to one's own section
knowledge of available vendor-supplied systems, services and products to support section/organizational operations and supervision/management
knowledge of the contracting process, both in general and within the organization
knowledge of evaluation methods and techniques to evaluate systems, services and products
knowledge of quality and production control techniques and procedures

ORGANIZATION/MANAGEMENT SUPPORT — SENIOR LEVEL

greater depths of knowledge specified above
knowledge of statistical description, analysis, interpretation and presentation
knowledge of the costs associated with resources (materials, personnel, space, etc.)
knowledge of cost analysis and interpretation methods
knowledge of methods of resource allocation
knowledge of alternative management structures and their implications for the operation of the section
state-of-the-art knowledge of research and practice in techniques for training, supervising, and evaluating staff
state-of-the-art knowledge of research and practice in techniques for supporting section/organizational operations and management

ORGANIZATION/MANAGEMENT SUPPORT — ENTRY LEVEL

Basic Skills

literacy, numeracy, cognitive, analytical, communications, etc.

Skills Related to Specific Activities

Ability to:

perform each activity
perceive the information needs of section staff and management
communicate well by written, verbal and non-verbal means
listen carefully
think and argue logically
think quickly in response to questions
project a positive attitude about the activities of the section/organization
make decisions and recommendations based on available information
work independently and in groups
develop criteria for evaluation
make effective, timely, and well-informed decisions
isolate and define problems and develop the necessary criteria and action for their solution
manage time effectively
conduct an interview
train staff
supervise staff
establish rapport with colleagues and with staff supervised
develop "espirt de corps" among staff supervised
conduct meetings with individuals and with groups
resolve conflicts among staff

ORGANIZATION/MANAGEMENT SUPPORT — MID LEVEL

Skills Related to Each Specific Activity

Skills listed above are developed to a greater extent

Ability to:

perceive the needs of the organization and not just of the section
understand the operation and maintenance requirements of equipment/systems/services used in the section/organization
write and evaluate contract-related documentation
communicate with data processing staff and various contractors on a technical level
arbitrate and negotiate with contractors

ORGANIZATION/MANAGEMENT SUPPORT — SENIOR LEVEL

Skills listed above are developed to a greater extent

Ability to:

anticipate long-range needs of the section and of the organization
design systems and procedures to improve operations of the section and of the organization
apply methods of measurement and evaluation
budget and make projections
optimize the use of organizational and section resources

ORGANIZATION/MANAGEMENT SUPPORT

Dispositional Attitudes

Attitudes Toward Institutions

Respect for profession
Respect for the section
Respect for the parent organization

Attitudes Toward Other People

Toward Users

Respect users
Like people in general
Like to help people
Like to meet people
Like to make others feel comfortable
Sensitive to others' needs

Toward Others in the Workplace

Respect co-workers

Like to work with others/as a team
Like to work on own
Willingness to draw upon and share knowledge and experience with others
Supportive of co-workers
Enjoy managing/supervising others

Personal Qualities

Alertness
Assertiveness
Compassion/Kindness
Confidence
Cheerfulness
Dependability
Determination/Tenacity
Diplomacy
Emotional stability
Fairness
Flexibility/Versatility
Imagination
Inquisitiveness
Leadership ability

ORGANIZATION/MANAGEMENT SUPPORT

Personal Qualities (cont'd)

Neatness
Need for achievement
Objectivity
Open-mindedness
Optimism/Positive attitude
Organization
Patience
Physical endurance
Resourceful
Sensitive/Thoughtful
Sense of humor
Sense of ethics
Tolerance

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